

## DECISION RECORD

Decision: It is my decision to authorize the issuance of a grazing permit of public lands to Mark and Kathryn Marley for allotment 63106. The permit will allow 95 Animal Units yearlong at 31 % Public Land for 354 Animal Unit Months on allotment 63106. The permit will be issued for the duration of the base lease held by Mark and Kathryn Marley. Any additional mitigation measures identified in the environmental impacts sections of the attached environmental assessment have been formulated into stipulations, terms and conditions. Any comments made to this proposed treatment were considered and any necessary changes have been incorporated into the environmental assessment.

Signed by                      T. R. Kreager  
Assistant Field Manager - Resources

8/9/99

Date

**ENVIRONMENTAL ASSESSMENT  
for  
GRAZING AUTHORIZATION**

**ALLOTMENTS 63106**

**EA-NM-066-98-081**

**May, 1999**

**U.S. Department of the Interior  
Bureau of Land Management  
Roswell Field Office  
Roswell, New Mexico**

## **I. Introduction**

When authorizing livestock grazing on public range, the Bureau of Land Management (BLM) has historically relied on a land use plan and environmental impact statement to comply with the National Environmental Policy Act (NEPA). A recent decision by the Interior Board of Land Appeals, however, affirmed that the BLM must conduct a sitespecific NEPA analysis before issuing a permit or lease to authorize livestock grazing. This environmental assessment fulfills the NEPA requirement by providing the necessary site-specific analysis of the effects of issuing a new grazing permit on allotment 63106.

The scope of this document is limited to the effects of issuing a grazing permit for allotment 63106. Other future actions such as range improvement projects will be addressed in a project specific environmental assessment. There are no new improvement projects currently planned on this allotment.

### **A. Purpose and Need for the Proposed Action**

The purpose of issuing a new grazing permit would be to authorize livestock grazing on public lands on allotment 63106. The permit would specify the types and levels of use authorized, and the terms and conditions of the authorization pursuant to 43 CFR §§4130.3, 4130.3-1, 4180.1 and 4130.3-2.

### **B. Conformance with Land Use Planning**

The Roswell Resource Management Plan/Environmental Impact Statement (October 1997) has been reviewed to determine if the proposed action conforms with the land use plan's Record of Decision. The proposed action is consistent with the RMP/EIS.

### **C. Relationships to Statutes, Regulations, or Other Plans**

The proposed action is consistent with the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1700 et seq.); the Taylor Grazing Act of 1934 (43 U.S.C. 315 et seq.), as amended; the Clean Water Act (33 U.S.C. 1251 et seq.), as amended; the Endangered Species Act (16 U.S.C. 1535 et seq.) as amended; the Federal Rangelands Improvement Act of 1978 (43 U.S.C. 1901 et seq.); Executive Order 11988, Floodplain Management and Executive Order 11990, Protection of Wetlands.

## **II. Proposed Action and Alternatives**

### **A. Proposed Action:**

The proposed action is to authorize a grazing permit for 95 animal units yearlong at 31 % Federal Range for 354 Animal Unit Months (AUM's) on allotment 63106. The permit will be for the duration of the base lease by Mark Marley from Arroyo Seco Inc.

## **B. No Change Alternative**

This alternative would not issue a grazing permit. There would be no livestock grazing authorized on public land within allotment 63106.

## **III. Affected Environment**

### **A. General Setting**

Allotment 63106 is located in Lincoln County, approximately 33 miles northwest of Roswell, New Mexico just south of State Road 246. The public lands consist of two tracts that total 1479 acres. The permit for grazing list the total number of livestock for the entire ranch unit.

This allotment lies within the Roswell Grazing District boundary established subsequent to the Taylor Grazing Act (TGA). Overall livestock numbers for the ranch are controlled. The amount of forage produced on public land is the determining factor on the number of authorized livestock for the public land.

The landscape is moderately steep, limestone hills dissected by canyons in the foothills of the Capitan Mountains. More detailed information of the area is discussed under the affected resources section.

The following resources or values are not present or would not be affected: Prime/Unique Farmland, Areas of Critical Environmental Concern, Minority/Low Income Populations, Wild and Scenic Rivers, Hazardous/Solid Wastes, Wetlands/Riparian Zones. Native American Religious Concerns. Cultural inventory surveys would continue to be required for public actions involving surface disturbing activities.

### **B. Affected Resources**

1 - Soils: The Soil Survey of Lincoln County Area New Mexico describes the soils as Deama-Rock outcrop association, very steep on hills and breaks. Slope is 15 to 50 percent. Areas are irregular in shape and are 1000 to 5000 acres in size. The native vegetation is mainly short and mid grasses. Elevation is 4500 to 6000 feet.

The average annual precipitation is 12 to 16 inches, the average annual air temperature is 45 to 56 degrees F, and the average frost free period is 150 to 190 days.

The Deama very cobbly loam make up 60 percent and Rock outcrop on the breaks make up 20 percent of the area. The Deama soil is very shallow and shallow and is well drained. It formed in residuum derived from limestone. Typically, the surface layer is brown very cobbly loam about 7 inches thick over limestone. Permeability of the Deama soil is moderate. Available water capacity is very low. Effective rooting depth is 7 to 20 inches. Runoff is rapid, and the hazard of water erosion is high. The hazard of soil blowing is slight. The Rock outcrop areas are exposed limestone with little vegetation and rapid runoff.

2. Vegetation: This allotment is within the pinyon-juniper vegetative community as identified in the Roswell Resource Management Plan/Environmental Impact Statement (RMP/EIS). Vegetative communities managed by the Roswell Field Office are identified and explained in the RMP/EIS. Appendix 11 of the draft RMP/EIS describes the Desired Plant Community (DPC) concept and identifies the components of each community. The distinguishing feature for the pinyon-juniper community is that the area does have the potential to have pinyon, juniper, or mountain mahogany in the description of the potential plant community. The primary consideration for inclusion into this community type is the influence of topography, elevations, and slopes. This community type has smaller areas that are scattered throughout other types such as grasslands.

Range monitoring studies have been conducted on this allotment. These studies indicate the range condition to be fair and that sufficient forage for the proposed number of livestock is being produced. The studies show only slight changes in condition since the studies were begun in 1981.

The Roswell Resource Management Plan/Environmental Impact Statement (RMP) of October 1997 designated desired plant communities for each vegetative community. The community found on this allotment is the pinyon/juniper community. Monitoring data indicates that the vegetative conditions on allotment #63106 achieve the multiple resource objectives established in the Roswell RMP. Livestock stocking levels are within the allowable vegetation utilization range. Monitoring data and analysis are available for review at the Roswell Field Office. The existing vegetation consists of grasses such as hairy grama, sideoats grama, 3-awns, muhlys and trident. The shrub and tree species include skunkbush, yucca, bear grass, catclaw, sotol, feather dalea, one-seed juniper, and alligator bark juniper.

3. Wildlife: Game species occurring within the area include mule deer, mourning dove, and scaled quail. Raptors that utilize the area on a more seasonal basis include the Swainson's, red-tailed, and ferruginous hawks, American kestrel, and great-horned owl. Numerous passerine birds utilize the grassland areas due to the variety of grasses, forbs, and shrubs. The most common include the western meadowlark, mockingbird, horned lark, killdeer, loggerhead shrike, and vesper sparrow. Reptiles include a variety of snakes, lizards, and amphibians.

A general description of wildlife occupying or potentially utilizing the proposed action area is located in the Affected Environment Section (p. 3-62 to 3-71) of the Draft Roswell RMP/EIS (9/1994).

4. Threatened and Endangered Species: The only known threatened or endangered species of plants or animals on allotment 63106 is the bald eagle. A list of federal threatened, endangered and candidate species reviewed for this EA can be found in Appendix 11 of the Roswell Approved RMP (AP11-2). Of the listed species, avian species such as the bald eagle and peregrine falcon may be observed in the general geographic area during migration or winter months. There are no designated critical habitat areas within the allotment.

5. Livestock Management: The allotment is operated as a combined sheep and cow/calf operation.

6. Visual Resources: The allotment is located within a Class IV Visual Resource Management area. This means that contrasts may attract attention and be a dominant feature in the landscape in terms of scale. However, the changes should repeat the basic elements of the landscape.

7. Water Quality: No perennial surface water is found on the Public Land on this allotment but the canyons that dissect the area carry a tremendous amount of runoff during major storm events.

8. Air Quality: Air quality in the region is generally good. The allotment is in a Class 11 area for the Prevention of Significant Deterioration of air quality as defined in the public Clean Air Act. Class 11 areas allow a moderate amount of air quality degradation.

9. Recreation: Recreation opportunities are limited in this grazing allotment because the public has limited physical access to public lands. The parcels of Public lands within this allotment are scattered. Some of the public lands in this allotment have legal access through state lands and/or county or state roads.

Recreation activities that may occur on these public lands are within this allotment are: hunting, sightseeing, Off Highway Vehicle Use, primitive camping, mountain biking, horseback riding and hiking. Due to the fact that public land boundaries are not marked adequately or identified by signs and/or fences the general public land user is reluctant to use the public lands in fear of being in trespass on private land. Off-Highway Vehicle designations for public lands within this allotment are classified as "Limited" to existing roads and trails.

10. Cave/Karst: A complete significant cave or karst inventory has not been completed for the public lands located in this grazing allotment. Presently, no known significant caves or karst features have been identified within this allotment. If at a later date, a significant cave or karst feature is located on public lands within this allotment, that cave or feature may be fenced to exclude livestock grazing and Off Highway Vehicle Use. A separate Environmental analysis would be prepared to construct this enclosure fence. This allotment is located within a designated area of Medium Karst or Cave Potential.

11. Floodplain: Zeufeldt Canyon and Arroyo Seco are shown on the flood hazard maps of Lincoln County. The canyon drain a tremendous amount area and the possibility of livestock being caught in a flood does exist.

## **IV. Environmental Impacts**

### **A. Impacts of the Proposed Action**

1. Soils: Livestock remove the cover of standing vegetation and litter, and compact the soil by trampling. These effects can lead to reduced infiltration rates and increased runoff. Reduced vegetative cover and increased runoff can result in higher erosion rates and soil losses, making it more difficult to produce forage and to protect the soil from further erosion. These adverse effects can be greatly reduced by maintaining an adequate vegetative cover on the soil. Proper utilization levels and grazing distribution patterns are expected to retain sufficient vegetative

cover on the allotment, this will maintain the stability of the soils. Soil compaction and excessive vegetative use will occur at small, localized areas such as bedding areas and along trails. Positive affects from the proposed action may include acceleration of the nutrient cycling process and chipping of the soil crust by hoof action may stimulate seedling growth and water infiltration.

2. Vegetation: Vegetation will continue to be grazed and trampled by domestic livestock as well as other herbivores. The area has been grazed by livestock since the early part of the 1900's, if not longer. Ecological condition and trend is expected to remain stable and/or improve over the long term with the proposed authorized number of livestock and existing pasture management. Rangeland vegetation inventory data indicates that there is an adequate amount of forage for the proposed number of livestock and for wildlife.

3. Wildlife: Domestic livestock will continue to utilize vegetative resources needed by a variety of wildlife species for life history functions within these allotments. The magnitude of livestock grazing impacts on wildlife is dependent upon the species of wildlife being considered, and it's habitat needs. In general, livestock stocking rate adjustments have been made in the past to minimize the direct competition for those vegetative resources needed by a variety of wildlife species. Cover habitat for wildlife will remain the same as the existing situation. Maintenance and operation of existing water locations will continue to provide dependable water sources for wildlife, as well as livestock.

4. T&E species: Livestock grazing as a result of the grazing permit, may affect, but not likely adversely affect the bald eagle and peregrine falcon. It is expected that habitat and range condition would be maintained or improved by authorizing grazing conducive with vegetation production goals. Habitat for wintering bald eagles would not have significant negative impacts by livestock grazing since there is no presence of riparian and aquatic habitats nearby, and no active or suitable nesting habitat. Positive impacts may result to the bald eagle from the proposed action by increasing the amount of carrion during the late winter and early spring.

5 Livestock Management: Livestock would continue to be grazed under the same management system and the same numbers as authorized under the expiring permit. No adverse impacts are anticipated under the proposed action.

6. Visual Resources The continued grazing of livestock would not affect the form or color of the landscape. The primary appearance of the vegetation within the allotment will remain the same.

7. Water Quality. Direct impacts to surface water quality would be minor, short-term impacts during storm event. Indirect impacts to water-quality related resources, such as fisheries, would not occur. The proposed action would not have a significant effect on ground water. Livestock would be dispersed over the allotment, and the soil would filter potential contaminants.

8. Air Quality: Dust levels under the proposed action would be slightly higher than under the no grazing alternative due to allotment management activities. The levels would still be within the limits allowed in a Class 11 area for the Prevention of Significant Deterioration of air quality.

9. Recreation: Grazing should have little or no affect on the recreational opportunities in this

allotment. Recreation activities that could occur within this grazing allotment are limited or non-existent due to land patterns and the inadequate marking of public land boundary lines.

10. Caves/Karst: No known significant caves or karst features are known to exist on the public lands located within this allotment. Since no caves have been identified on this grazing allotment, grazing would not affect the karst resources.

11. Floodplain: Improvements related to livestock management in the floodplain areas should be avoided if possible. Livestock grazing will have little effect on the floodplain.

## **B. Impacts of the No Livestock Grazing Alternative.**

1. Soils: Soil compaction would be reduced on the allotment around old trails and bedding grounds, there would be a small reduction in soil loss on the allotment.

2. Vegetation: It is expected that the number of plant species found within the allotment will remain the same, however, there would be small changes in the relative percentages of these species. Vegetation will continue to be utilized by wildlife. There would be an increase in the amount of standing vegetation.

3. Wildlife: Wildlife would have no competition with livestock for forage and cover.

4. T&E Species: There would be no impacts to threatened or endangered species or habitat.

5. Livestock management: The forage from public land would be unavailable for use by the permittee. This would have an adverse economic impact to the livestock operation. If the No Grazing alternative is selected, the owner of the livestock would be responsible for ensuring that livestock do not enter Public Land [43 CFR 4140.1 (b)(1)]. The land status pattern on the allotment makes it economically unfeasible to fence out the public land and use only the private land and state land.

6. Visual Resources: There would be no change in the visual resources.

7. Water Quality: There could be a slight improvement in water quality due to the minor reductions in sediment loading during storm events.

8. Air Quality: There would be a slightly less dust under this alternative versus the proposed alternative, but this would be negligible when considering all sources of dust.

9. Recreation: Impacts would be the same as the proposed action.

10. Caves/Karst: Impacts would be the same as the proposed action.

11. Floodplain: No affect to the floodplain will occur under this alternative.

## **V. Cumulative Impacts**

All of the allotments that have permits/permits with the BLM will have to go through scoping and analysis under NEPA. Allotment 63106 is near allotments that will be undergoing this process. If the proposed action is selected, there would be no change in the cumulative impacts since it does not vary from the current situation.

If the no livestock grazing alternative is selected, there would be little change in the cumulative impact as long as the surrounding allotments continue to be stocked at their current level. If the permitd numbers are reduced on the surrounding ranches as well, the economics of the surrounding communities and/or minority/low income populations would be negatively impacted.

The No Grazing alternative was considered, but not chosen in the Rangeland Reform Environmental Impact Statement (EIS) Record of Decision (ROD) (p. 28). The elimination of grazing in the Roswell Field Office Area was also considered but eliminated by the Roswell RMP/ROD (pp. ROD-2).

## **VI. Residual Impacts**

Vegetative monitoring studies have shown that grazing, at the current permitd numbers of animals, is sustainable. If the mitigation measures are enacted, then there would be no residual impacts to the proposed action.

## **VII. Mitigating Measures**

Vegetation monitoring studies will continue to be conducted and the permitd numbers of livestock will be adjusted if necessary. If new information surfaces that livestock grazing is negatively impacting other resources, action will be taken at that time to mitigate those impacts.

## **VIII. Summary**

The fundamentals of rangeland health are identified in 43 CFR §§4180.1 and pertain to watershed function, ecological processes, water quality and habitat for threatened and endangered (T&E) species or other special status species. Based on the best available data and professional judgement, the evaluation of this environmental assessment indicates that the fundamentals of rangeland health exist on allotment 63106.

## **IX. BLM Team Members**

Jim Schroeder, Hydrologist John Spain, Rangeland Management Specialist Tim Kreager, Area Manager, (reviewing for Hazardous Waste Specialist) Irene Gonzales-Salas, Realty Specialist Jerry Dutchover, Minerals Geologist Rand French, Wildlife Biologist Pat Flanary, Archeologist Howard Parman, Resource Planner